

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

PARALLEL NETWORKS LICENSING,)
LLC,)

Plaintiff,)

v.)

INTERNATIONAL BUSINESS)
MACHINES CORPORATION,)

Defendants.)

Civil Action No. 13-2072 (KAJ)

FILED UNDER SEAL

MEMORANDUM OPINION

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February 22, 2017
Wilmington, Delaware


JORDAN, Circuit Judge, sitting by designation

I. Introduction

There are four motions pending in this patent case: IBM's motion for summary judgment of non-infringement, Parallel Networks' motion for summary judgment to reject IBM's invalidity theories, and IBM's two *Daubert* motions. I heard oral argument on these motions on January 4, 2017. ("Tr.") For the reasons that follow, I will grant-in-part and deny-in-part both summary judgment motions, and will deny the *Daubert* motions.

Parallel Networks filed this action on December 20, 2013, alleging that IBM infringed U.S. Patent Nos. 5,894,554 ("the '554 patent") and 6,415,335 ("the '335 patent"). (Docket Item ("D.I.") 1.) The '554 patent was filed on April 23, 1996, and issued on April 13, 1999. On July 24, 2012, the PTO issued an ex parte reexamination certificate cancelling the first 11 claims of the '554 patent and adding new claims 12-49. (See D.I. 278 at A21.)¹ The '554 patent generally discloses methods for load-balancing dynamic web page generation requests across multiple page-servers in an Internet-based system.

The '335 patent was filed on January 19, 1999 and issued on July 2, 2002. On July 17, 2012, the PTO issued an ex parte reexamination certificate cancelling the first 29

¹ On October 2, 2012, the PTO issued a certificate of correction deleting claims 12-49 and replacing them with a new set of claims 12-49. (D.I. 278 at A15.)

claims and adding new claims 30-85. (*See* D.I. 278 at A45-46.)² It shares a specification with the ‘554 patent. (*See id.*)

Parallel Networks accuses IBM of infringing (both directly and indirectly) six independent claims and 14 dependent claims of the patents-in-suit. (D.I. 277 at 6 & n.3.) The asserted claims come in two flavors: “method” claims, which disclose a “method for managing a dynamic Web page generation request to a Web server,” and “machine readable medium” claims, which disclose “a machine readable medium having stored thereon data representing sequences of instructions, which when executed by a computer system, cause said computer system to perform the steps” of the method claims.

Claim 12 of the ‘554 patent is representative:

12. A computer-implemented method for managing a dynamic Web page generation request to a Web server, said computer-implemented method comprising the steps of:

Routing said request from said Web server to a selected page server, said selected page server receiving said request and releasing said Web server to process other requests, wherein said routing step further includes the steps of intercepting said request at said Web server, routing said request from said Web server to a dispatcher, and dispatching, by said dispatcher, said request to said selected page server;

Processing said request, said processing being performed by said selected page server while said Web server concurrently processes said other requests; and

Dynamically generating a Web page by said selected page server in response to said request, said Web page including data dynamically retrieved from one or more data sources; and

wherein dispatching includes:
examining said request to make a selection of which page server should process said request from among a plurality of page servers that can each generate said Web page requested by said request;

² On September 11, 2012, the PTO issued a certificate of correction deleting claims 30-85 and replacing them with a new set of claims 30-85. (D.I. 278 at A37.)

selecting one of said plurality of page servers to dynamically generate said Web page;
wherein said selection is based on examining dynamic information regarding a load associated with each of said plurality of page servers; and
sending said request to said selected page server based on said examination.

(‘554 patent.)

II. Legal Standards

Summary judgment is proper only if “the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). The moving party bears the burden of proving that no genuine issue of material fact exists. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 585 n.10 (1986); *Rockwell Int’l Corp. v. United States*, 147 F.3d 1358, 1362 (Fed. Cir. 1998). “A dispute about a material fact is genuine if the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Schering Corp. v. Geneva Pharm., Inc.*, 339 F.3d 1373, 1381 (Fed. Cir. 2003) (internal citations omitted).

If the moving party has demonstrated an absence of material fact, the nonmoving party then “must come forward with ‘specific facts showing that there is a *genuine issue for trial.*’” *Matsushita*, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e) (1968)). The court will “view the evidence in a light most favorable to the non-movant, and draw all reasonable inferences in its favor.” *Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1045 (Fed. Cir. 2001). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a reasonable jury to find for the

nonmoving party on that issue. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

III. IBM's Motion for Summary Judgment of Non-Infringement

Parallel Networks offers both direct and indirect infringement theories. It argues that IBM directly infringed the asserted claims by selling the accused products,³ by testing the accused products, and by hosting IBM's website. It argues that IBM is liable for indirect infringement on theories of induced infringement and contributory infringement. For the reasons that follow, I will grant IBM's motion with respect to indirect infringement and with respect to direct infringement as it pertains to the sale of the accused products and IBM's product tests. But I will deny IBM's motion with respect to the direct infringement theory based on the operation of its own website.

A. Direct Infringement

A party directly infringes a patent if it "makes, uses, offers to sell, or sells" the patented invention without permission. 35 U.S.C. § 271(a). In order to prove infringement, a plaintiff must show that the accused product meets each limitation of the asserted claims. *See Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 443 (2007); *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 n.2 (Fed. Cir. 2000).

³ There are two accused products: IBM's WebSphere Application Server and IBM's DataPower appliances. (D.I. 307 at 1.)

Parallel Networks asserts that IBM infringed its patents by selling the accused products, by testing the accused products, and by operating IBM's website.

1. Sale of IBM's WebSphere Application Server

Parallel Networks alleges that IBM directly infringed the "machine readable medium" claims of the '554 patent (claims 20, 46, and 48) by selling the accused products. IBM argues that it is entitled to summary judgment because Parallel Networks has failed to produce sufficient evidence to show that the accused products satisfy each limitation of the asserted claims. Specifically, IBM argues that, as sold, the accused products do not have multiple application servers, do not route requests from a web server to multiple application servers, and do not dynamically generate web pages with data that is dynamically retrieved. (D.I. 277 at 13.)

Parallel Networks points to three places in the record that, in its view, show that the accused products ship with multiple page servers. First, Parallel Networks points to a description of the WebSphere Application Server, which indicates that the Server includes an application server, an HTTP server, and web-server plugins. (D.I. 307 at 19 (citing D.I. 308 Ex. 38 at 20, Ex. 39 at 26).) But that description does not indicate how many page servers, if any, are included with the accused products. In fact, even Parallel Networks' own expert, Dr. Mark Jones, agrees that the WebSphere Application Server comes with, at most, one page server. (*See* D.I. 308 at Ex. 2 ¶¶ 188-92 (explaining that, while a WebSphere Application Server is a page server, the HTTP server and web-server plug-ins are *not* page servers, but are instead used to route requests *to* page servers).)

Second, Parallel Networks argues that Dr. Jones “specifically identified the sequences of instructions” in the accused products for routing web requests to one of a plurality of page servers. (D.I. 307 at 5, 19.) That, however, is a significant overstatement. The alleged “identification” of instructions is wholly inadequate, consisting of an incomprehensible 200+ page spreadsheet with nothing more than claim language and directory locations of source code files. (D.I. 308 Ex. 3.) Moreover, Parallel Networks’ argument would be inadequate even if it had identified the source code instructions. The asserted claims disclose a machine readable medium containing a series of instructions that, when executed, cause the system to select one of a plurality of page servers. (*See* ‘554 patent; ‘335 patent.) In order to select one of a plurality of page servers, there must necessarily be a plurality of page servers. The content of IBM’s source code does not appear to speak to that limitation.

Third, Parallel Networks argues that “it is clear that Websphere Application Server (as sold) includes multiple application servers” because “[t]he capability of deploying multiple application servers is present in the product upon download by the customer.” (D.I. 307 at 20.) That argument rests on faulty logic. The fact that the accused products may be used to create application servers does not mean that the products, as sold, include application servers, as is required by the claims. (*See* D.I. 278 Ex. 9 at A819 (Eric Covener, a senior software engineer who worked on the WebSphere product, explaining that “[c]ompanies have the *option* to create multiple application servers,” but that “multiple application servers are not deployed by default”) (emphasis added).)

While each of Parallel Networks' record-based arguments fails to show that the accused products satisfy the "plurality of page servers" limitation, there is one more argument to consider. Parallel Networks suggests that the "plurality of page servers" is implicitly built into the accused products, such that one need only "install," "activate," or "deploy" the product to satisfy the claim limitation. (*See* D.I. 307 at 19 (relying on *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1205 (Fed. Cir. 2010) ("The fact that users needed to 'activate the functions programmed' by purchasing keys does not ... nullify the existence of the claimed structure in the accused software.") and *Versata Software, Inc. v. SAP Am., Inc.*, 717 F.3d 1255, 1262 (Fed. Cir. 2013) (recognizing that accused products infringe even if the product only meets claim limitations upon activation))).) That argument, though, is not supported by the record.

Parallel Networks does not identify any evidence showing that the installation or configuration of the accused products will necessarily result in multiple page servers. There is no evidence in the record showing that the accused products, as sold, contain multiple page servers, as required by the claims. To the contrary, there is persuasive evidence showing that a customer who purchases the accused products must take deliberate steps to instantiate and configure page servers. (*See* D.I. 278 Ex. 3 at A97-98 (explaining how to create and configure page servers, and thus showing that page servers are not created by default).) IBM points to its product manuals to show that there are several ways to install, configure, activate, or deploy the accused products without using or creating multiple page servers. (*See id.* at A94 (depicting a system with only one page server and providing configuration instructions), A98 (depicting a system that can have

one or more page servers, and providing instructions that allow users to choose the number of page servers); Ex. 9 at A819 (Eric Covener explaining that the accused product does not contain multiple page servers by default).)

The complexity involved in the installation of the accused products (*see id.* Ex. 9 at A761-62 (IBM's expert, Dr. Philip Greenspun, explaining that "the product must be installed in a larger system, which is a complex task generally undertaken by a team of professionals"), A819 (Eric Covener, explaining that "[d]eploying multiple application servers ... is significantly more complicated"), in tandem with the many non-infringing configurations, shows that this is not a case in which the only gap between the product-as-sold and the product-as-infringing is the press of a button, a simple activation, or the word "go." *Cf. Finjan, Inc.*, 626 F.3d at 1205 (recognizing that a product can infringe even if the accused functionality must be "activated"); *Versata Software, Inc.*, 717 F.3d at 1262 (same). Accordingly, I conclude that Parallel Networks has failed to demonstrate that the accused products, as sold, satisfy the "plurality of page servers" limitation.

Because IBM prevailed with respect to the "plurality of page servers" limitation, it has shown that it is entitled to summary judgment of non-infringement with respect to the sale of the accused products. There is no need to address the other limitations.

2. *Testing of the Accused Products*

Parallel Networks alleges that IBM directly infringed the asserted claims by testing the accused products. However, it does not identify any evidence on which a reasonable jury could rely to conclude that the accused products were tested in the

relevant time frame or that the accused products were configured in an infringing manner when they were tested.

In support of its “testing” theory of infringement, Parallel Networks relies on deposition testimony indicating that IBM has tested the accused products, along with a schematic showing the structure of one of its WebSphere Server tests. (D.I. 308 at 264-69.)

The problem is that the schematic was taken from a document dated November 3, 2009⁴ and Parallel Networks does not have any evidence showing that any tests (let alone infringing tests) took place after the issue date of the patents-in-suit. Moreover, Parallel Networks does not offer any evidence that shows that the pages served in the alleged tests were “on the World Wide Web,” as is required by the Court’s construction of the term “web page.” (*See* D.I. 204 at 1-2.) Once again, IBM offers evidence to the contrary. It has evidence showing that it would not have connected its products to the world wide web during tests and would instead have relied on “tools that can generate fake traffic.” (D.I. 278 Ex. 9 at A766.)

Because Parallel Networks has failed to show that IBM tested the accused products in an infringing manner, I will grant IBM’s motion for summary judgment of non-infringement with respect to product tests.

3. *Operation of IBM’s Website*

Parallel Networks alleges that IBM’s website infringes the asserted claims. In response, IBM argues that it is entitled to summary judgment because “Parallel Networks

⁴ As explained above, the patents-in-suit issued in 2012.

failed to come forth with evidence” that its website meets every limitation of any claim. (D.I. 277 at 27.) This time, Parallel Networks has the better of the argument, since it has produced enough evidence to withstand summary judgment.

If IBM can show, using undisputed facts, that there is *any* claim limitation that is not satisfied, then it is entitled to summary judgment of non-infringement. *See Microsoft Corp.*, 550 U.S. at 443. Conversely, in order to defeat IBM’s motion for summary judgment, Parallel Networks must show that there is, at minimum, a dispute of material fact with respect to whether each claim limitation is met by IBM’s website. In light of the briefing and accompanying appendices, I conclude that IBM has not shown that it is entitled to summary judgment of non-infringement with respect to the operation of its website.

The asserted claims include three sets of limitations – ones relating to routing a web request, ones relating to processing a web request, and ones relating to generating a web page. There is evidence in the record upon which a reasonable jury could rely to conclude that IBM’s website satisfies each such limitation.⁵

⁵ Each of the three sets of limitations can be found in claims 12, 20, 46, and 48 of the ‘554 patent and claims 30 and 43 of the ‘335 patent. The three sets of limitations can be broken up as follows:

(1) The “routing” limitations, as disclosed in representative claim 12 of the ‘554 patent, include:

Routing said request from said Web server to a selected page server, said selected page server receiving said request and releasing said Web server to process other requests, wherein said routing step further includes the steps of intercepting said request at said Web server, routing said request from said Web server to a dispatcher, and dispatching, by said dispatcher, said request to said selected page server;

IBM's satisfaction of the "routing" and "processing" limitations is evidenced by IBM's response to interrogatory number 11, which explains that web requests directed to "ibm.com" are routed through several servers, using dynamic load-balancing, before being sent to a selected page server for processing and service.⁶ (D.I. 361 at A842-43;

...
wherein dispatching includes:

 examining said request to make a selection of which page server should process said request from among a plurality of page servers that can each generate said Web page requested by said request;

 selecting one of said plurality of page servers to dynamically generate said Web page;

 wherein said selection is based on examining dynamic information regarding a load associated with each of said plurality of page servers; and

 sending said request to said selected page server based on said examination.

(2) The "processing" limitations, as disclosed in representative claim 12 of the '554 patent, include:

 Processing said request, said processing being performed by said selected page server while said Web server concurrently processes said other requests; and

(3) Finally, the "generating" limitations, as disclosed in representative claim 12 of the '554 patent, include:

 Dynamically generating a Web page by said selected page server in response to said request, said Web page including data dynamically retrieved from one or more data sources.

For each of the three sets of limitations, the language in claim 12 does not vary materially from the language of the other asserted claims, except that claim 43 of the '335 patent requires an "HTTP-compliant device" rather than a Web server. That difference does not impact my infringement analysis.

⁶ Neither IBM nor Parallel Networks included IBM's response to interrogatory number 11 in its briefing materials. Nevertheless, IBM displayed a portion of the

see also D.I. 308 Ex. 2 at 158 (explaining that IBM uses a weighted round robin algorithm to distribute requests to some of its page servers).)⁷

Given IBM's answer to interrogatory number 11, the only remaining limitations relate to whether any of IBM's web pages are "dynamically generated" with "data dynamically retrieved from one or more data sources." Considering that limitation, Dr. Jones points to an IBM document that describes IBM's website infrastructure. (*See* D.I. 308 Ex. 2 at 156-58 (excerpting and analyzing *AHE Middleware Operational Infrastructure*).) He concludes, based on the document, that IBM serves dynamic content using the WebSphere Application Server. (*Id.*) He also concludes, based on deposition testimony from IBM employees, that IBM's "common commerce engine" and "common portal engine" serve dynamic content. (*Id.* at 158.) Dr. Greenspun does not address Parallel Networks' assertions regarding those engines. (*See* D.I. 278 at A764-65

response in its oral argument slide deck. On January 20, 2017, I ordered IBM to submit a supplemental appendix including the response. (D.I. 360.)

⁷ There appears to be a dispute of fact as to whether IBM's "weighted round robin" load-balancing algorithm is "based on examining dynamic information" regarding the load associated with each page server. (*Compare* D.I. 308 Ex. 2 at 33-35, 190-91 (Parallel Networks' expert explaining that a weighted round robin load-balancing algorithm "is based at least in part on dynamic information maintained about the load on each back-end WebSphere Application Server.") *with* D.I. 278 at A635-36 (IBM's expert explaining that a weighted round robin algorithm "does not fall within the scope of the load-balancing limitations of the asserted claims"); A666-67 (explicitly disagreeing with Parallel Networks' expert).) I do not, however, need to rely on this factual dispute to deny IBM's motion. IBM's response to interrogatory number 11 indicates that ibm.com may dynamically load-balance requests at least once before the weighted round robin algorithm is used. (*See* D.I. 361 at A842-43.)

(discussing the “dynamically generating” limitation).)⁸ Based on the present record, I conclude that there is a dispute of fact as to whether IBM’s web pages satisfy the “dynamically generated” limitations.

Because there are disputes of fact as to each limitation of the asserted claims, summary judgment of non-infringement with respect to the operation of IBM’s website cannot be granted.

⁸ Instead of responding to Parallel Networks’ analysis regarding specific components of IBM’s network infrastructure, IBM’s expert analyzed a handful of web pages from IBM’s domain and concluded that each web page “used [a] non-infringing AJAX style of programming where the Web page seen by a user is generated within the browser, and not on any page server.” (D.I. 278 at at A765.) Based on his tests, IBM’s expert concluded that none of IBM’s web pages infringed the asserted claims.

Assuming *arguendo* that the pages considered by IBM’s expert are representative of all of IBM’s web pages (which is itself disputed), IBM would still not be entitled to summary judgment. Instead, IBM’s analysis would implicate another factual dispute – whether web pages generated with AJAX would satisfy the “dynamically generating” limitation. (*Compare* D.I. 278 at A764-65 (IBM’s expert explaining that servers using AJAX and JSON need not generate web pages at a web server, but can instead cause web pages to be generated at the client) *with* D.I. 308 Ex. 4 at 1-5 (Parallel Nextwork’s expert rebutting IBM’s expert report and arguing that, even if IBM’s servers “are returning dynamically assembled information in JSON, XML, or a similar format, ... they are generating and returning web pages”).)

B. Indirect Infringement

Parallel Networks asserts two theories of indirect infringement – inducement to infringe, in violation of 35 U.S.C. § 271(b), and contributory infringement, in violation of 35 U.S.C. § 271(c). Because Parallel Networks has failed to produce evidence sufficient to prove either of those theories, I will grant IBM’s motion for summary judgment of non-infringement with respect to them.

1. Inducement to Infringe

In order to prove there has been inducement to infringe, a patent owner must show that there was an underlying act of direct infringement, that the defendant knew the acts were infringing, and that the accused infringer took active steps to encourage infringement. *See* 35 U.S.C. § 271(b); *Microsoft Corp. v. DataTern, Inc.*, 755 F.3d 899, 904 (Fed. Cir. 2014); *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 851 (Fed. Cir. 2010). IBM argues, and I agree, that Parallel Networks has failed to produce evidence sufficient to show that IBM took active steps to encourage infringement.

In attempting to show that IBM encouraged its customers to infringe, Parallel Networks points to various documents IBM used to help clients configure and operate the accused products. (*See* D.I. 308 Ex. 2 at 281 (relying on “Redbooks, Knowledge Centers, and developerWorks blogs and papers.”).) Those documents, however, do not actually recommend any infringing configurations. Instead, they simply describe some of the ways that the accused products can be configured and, in the process, explain some of the advantages and disadvantages associated with different configurations. (*Id.* at 286-87.)

For example, one of IBM's Redbooks, *WebSphere Concepts, Planning, and Design Guide*, emphasizes that "the correct topology" for a business environment depends on individualized aspects of the business environment (D.I. 278 Ex. 3 at A75) and explains that the purpose of the "topologies" chapter is to help consumers "understand the different components that are involved in a topology, and the best way to implement them according to [one's] business needs." (*Id.*) Later, when describing application servers, the guide explains that, "[f]or your topology, you must consider which ... servers are needed and where to place them." (*Id.* at A79.) Similarly, an article on IBM's "developerWorks" website explains that it "compares ... solutions so you can ... determine the best choice for your requirements." (*See* D.I. 308 Ex. 2 at 292.) That kind of language does not show that IBM took active steps to encourage infringement. As the Federal Circuit explained, "[t]he question is not just whether instructions describ[e] the infringing mode, but whether the instructions teach an infringing use of the device such that we are willing to infer from those instructions an affirmative intent to infringe the patent." *Takeda Pharms. U.S.A., Inc. v. West-Ward Pharm. Corp.*, 785 F.3d 625, 631 (Fed. Cir. 2015) (internal quotation marks and citations omitted). Because Parallel Networks has not identified a statement in any of the documents that recommends an infringing configuration, I will grant IBM's motion for summary judgment of non-infringement with respect to inducement to infringe.

2. *Contributory Infringement*

In order to prove contributory infringement, a patent owner must show that there was an underlying act of direct infringement, that the defendant knew the acts were

infringing, that the accused product was especially made or adapted for an infringing use, and that the accused product is “not a staple article or commodity of commerce suitable for substantial noninfringing use.” 35 U.S.C. § 271(c); *i4i Ltd. P’ship*, 598 F.3d at 851-52. IBM argues, and I agree, that Parallel Networks has failed to show that the accused products are not “suitable for substantial noninfringing use.”

The only evidence Parallel Networks offers on this issue is a conclusory statement by Dr. Jones that “there is no substantial, non-infringing use of the accused components.” (D.I. 308 Ex. 2 at 314-15.) IBM, on the other hand, has identified several non-infringing uses of the accused products. Specifically, IBM cites evidence showing that the accused products can be used to establish server configurations with a *single* page server. (D.I. 278 Ex. 3 at A94.) Similarly, IBM shows how the accused products can be used to facilitate a variety of services other than dynamic web pages, including data-based applications (*e.g.*, Voice Over IP), e-mail clients, security services, and transactions, among others. (*See* D.I. 278 Ex. 9 at A680-83.) Dr. Jones does not address any of those non-infringing alternatives.⁹

⁹ Parallel Networks attempts to rebut IBM’s evidence by arguing that the alleged non-infringing alternatives are part of a discrete and separable product. Specifically, Parallel Networks argues that IBM “embed[ded] a component with no substantial non-infringing uses in a larger product with some additional separable features.” (D.I. 307 at 38 (citing *Ricoh Co., Ltd. v. Quanta Computer, Inc.*, 550 F.3d 1325, 1337-38 (Fed. Cir. 2008)).) Parallel Networks, however, does not distinguish between the “larger product” and the allegedly infringing components, and does not point to any evidence showing that the allegedly non-infringing alternatives rely on different hardware.

In light of the evidence showing that there are substantial non-infringing uses of the accused products, and the lack of evidence to the contrary, summary judgment of non-infringement with respect to contributory infringement is appropriate.

IV. Parallel Networks' Motion for Summary Judgment on Invalidity

IBM contends that the asserted claims are invalid under 35 U.S.C. § 102(a), § 102(g)(2), and § 103. Parallel Networks disagrees and seeks a summary judgment order rejecting IBM's invalidity theories. I agree with Parallel Networks' motion to reject the defense of anticipation under § 102(a) and obviousness under § 103, but I will deny the motion with respect to anticipation under § 102(g)(2).

A. Anticipation Under § 102(a)

Under the operative version of 35 U.S.C. § 102(a) – *i.e.*, the version that predates the America Invents Act – a patent is invalid if “the [patented] invention was known or used by others in this country ... before the invention thereof by the applicant for patent.” “In order to invalidate a patent based on prior knowledge or use, that knowledge or use must have been available to the public.” *Woodland Trust v. Flowertree Nursery, Inc.*, 148 F.3d 1368, 1370-71 (Fed. Cir. 1998); *see also Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 139 (Fed. Cir. 1986) (“The statutory language, ‘known or used by others in this country’ means knowledge or use which is accessible to the public.”).

IBM contends that the asserted claims are anticipated by IBM's use of a web server to host the website for the 1996 Masters golf tournament.¹⁰ (D.I. 305 at 2.)

¹⁰ Parallel Networks was originally under the impression that IBM sought to assert two prior art references to support its § 102(a) invalidity theory: the server that was used

Parallel Networks disagrees and argues that it is entitled to summary judgment because IBM's use of the web server was not a "public use." (D.I. 274 at 30.) I agree.

The relevant facts are not in dispute. One of the components of IBM's Masters server was a TCP router. (D.I. 306 at A711.) The router allocated web requests from a central server to a variety of page servers. (*Id.*) But in doing so, the router isolated IBM's internal network from the outside world. Users attempting to access the Masters website could only "see" one server; users could not observe any of IBM's internal network operations, including request-routing and load-balancing. (*See* D.I. 275 Ex. 37 at 24-25 (explaining that technology used in the Masters server "took a group of servers and made them appear as one IP address to the network"), 203-04 ("[T]he client doesn't know we're [routing its request].").)¹¹

The parties disagree about the significance of the TCP router. Parallel Networks argues that the hidden, "black-box" structure of the Masters server means that there was no "public use" of the asserted claims. IBM disagrees, and argues that "public use" does not require "public access to the 'inner workings' of an invention." (D.I. 305 at 18.)

Parallel Networks' position is more persuasive.

to host the website for the 1996 Masters golf tournament, and the server that was used to host the website for the 1996 Kasparov/Deep Blue chess match. (D.I. 274 at 28.) In its answering brief, IBM clarified that it "has not alleged that the chess match website is an invalidating public use." (D.I. 305 at 2 n.2.)

¹¹ As the party asserting an invalidity theory, IBM bears the burden of showing that its website technology was available to the public. Not only does IBM fail to meet its burden, its own witnesses testimony indicates to the contrary. (*See* D.I. 275 Ex. 37 at 203-04.)

The purpose of § 102(a) is to ensure that “a person cannot patent what [is] already known to others.” *Woodland Trust*, 148 F.3d at 1370. In this context, “the key criterion for prior art [is] its public accessibility.” Robert L. Harmon, *Harmon on Patents* 372 (2007). The fact that IBM obscured the inner workings of its Masters server necessarily means that its website technology was not publically accessible. Because users were only able to “see” a single IBM server, they had no way of knowing how IBM routed their requests, or even *that* IBM routed their requests. (See ‘554 patent at 4:11-53 (explaining that the standard prior art practice was to handle all requests at a single web server).) In light of this complete lack of actual publically accessible use or disclosure, the 1996 Masters server does not and cannot qualify as prior art under § 102(a). See *Kimberly-Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1453 (Fed. Cir. 1984) (“[T]he real meaning of ‘prior art’ in legal theory ... is knowledge that is available ... at a given time, to a person of ordinary skill in the art.”).

In reaching that conclusion, I acknowledge that the Masters server was, as a technical matter, accessible to the public. That is, members of the public were able to submit web requests to the server and to receive web pages (web data) from the server. But public access to the *server* does not amount to public access to the *invention*. The asserted claims disclose methods “for managing a dynamic Web page generation request to a Web server.” (‘554 patent.) In their interactions with the Masters server, members of the public did not manage dynamic web requests, nor did they route requests or process requests. All of those actions were carried out exclusively, and confidentially, by IBM’s servers.

IBM attempts to save its anticipation defense by pointing to a handful of Supreme Court and Federal Circuit cases that relied for an invalidity determination on prior art references that did not plainly expose the invention at issue. *See Egbert v. Lippman*, 104 U.S. 333, 336 (1881) (corset steel); *Hall v. Macneale*, 107 U.S. 90, 97 (1883) (combination safe); *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1568 (Fed. Cir. 1997) (electronic airline reservation system). But those cases do not help IBM. In each of those cases, the public knew about the invention and how it worked. The same cannot be said about IBM's server technology. *See Egbert*, 104 U.S. at 337 (invention was "allow[ed] to be used without restriction of any kind"); *Hall*, 107 U.S. at 97 (the selection and arrangement of bolts in the safe "were necessarily known to the workmen who put them in"); *Lockwood*, 107 F.3d at 1570 ("[T]he public was aware that [the reservation system] possessed this capability and ... the public had [used] SABRE").

B. Anticipation Under § 102(g)(2)

In order to invalidate a patent under § 102(g)(2), a challenger must prove, by clear and convincing evidence that the invention was made by a prior inventor¹² and that the inventor did not "abandon, suppress, or conceal" the invention. *Fox Group, Inc. v. Cree, Inc.*, 700 F.3d 1300, 1304 (Fed. Cir. 2012) (quoting *Mycogen Plant Sci., Inc. v. Monsanto Co.*, 243 F.3d 1316, 1332 (Fed. Cir. 2001)). IBM believes that it can prove

¹² "[A] challenger ... has two ways to prove that it was the prior inventor: (1) if it reduced its invention to practice first ... or (2) it was the first party to conceive of the invention and then exercised reasonable diligence in reducing that invention to practice." *Fox Group, Inc. v. Cree, Inc.* 700 F.3d 1300, 1304 (Fed. Cir. 2012) (quoting *Mycogen Plant Sci., Inc. v. Monsanto Co.*, 243 F.3d 1316, 1332 (Fed. Cir. 2001)).

those elements. Specifically, IBM argues that it was a prior inventor of the asserted claims, that it used the invention to host websites associated with the 1996 Masters golf tournament and 1996 Olympic Games, and that it did not abandon, suppress, or conceal the invention. Parallel Networks disagrees and seeks summary judgment that IBM cannot rely on the § 102(g)(2) defense. Because there is a dispute of fact as to whether IBM suppressed or concealed its invention, I will deny Parallel Networks' motion for summary judgment as to that defense.

While Parallel Networks claims that IBM "failed to promptly publish the purported prior invention" (D.I. 274 at 28), IBM points to numerous documents suggesting that it did disclose its website technology in a timely fashion. *See* Andy Stanford-Clark, *Atlanta Olympics WOMplex*, AIXpert Magazine (1997), *available at* D.I. 306 at A222-32 (describing the infrastructure used to host the 1996 Olympics games); IBM, *Olympic-Caliber Computing* (1997), *available at* D.I. 306 at A234-341 (handbook that "was written for customers, systems integrators, and solution architects"); *Interactive Network Dispatcher Overview*, *available at* D.I. 306 at A470-71, 547-58 (marketing presentation describing TCP router technology and load-balancing architecture); Yew-Huey Liu, Paul Dantzig, C. Eric Wu, Jim Challenger, Lionel M. Ni, *A Distributed Web Server and Its Performance Analysis on Multiple Platforms* (1996), *available at* A658-66 (paper presented at the 16th International Conference on Distributed Computing Systems, describing distributed web architecture).

Those articles, handbooks, and presentations appear to describe IBM's website technology and support IBM's claim that it did not "suppress[] or conceal" the invention.

At the very least, there is a dispute of material fact regarding this issue. As a result, Parallel Networks' motion for summary judgment of anticipation under § 102(g)(2) cannot succeed.

C. Obviousness

To determine whether a patented invention is obvious, courts consider “(1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations of nonobviousness.” *Redline Detection, LLC v. Star Envirotech, LLC*, 811 F.3d 435, 449 (Fed. Cir. 2015) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)). Someone mounting an obviousness challenge “must demonstrate ... that a skilled artisan would have had reason to combine the teaching of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success from doing so.” *Id.* (quoting *PAR Pharm., Inc. v. TWI Pharm., Inc.*, 773 F.3d 1186, 1193 (Fed. Cir. 2014)).

Parallel Networks' motion for summary judgment on the issue of obviousness raises two issues in particular: first, whether IBM is estopped from asserting its proposed prior art combinations, and second, whether there is a dispute of material fact regarding either the scope of viable (*i.e.* non-estopped) prior art or the obviousness of the asserted claims in light of the prior art.¹³

¹³ Estoppel is a question of law, *Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1358 (Fed. Cir. 2001), and, in any event, there are no disputes as to the facts needed to resolve the estoppel question.

I conclude that IBM is indeed estopped from asserting several prior art references and that, in light of the estoppel, IBM cannot show that the asserted claims would have been obvious.

1. Estoppel

A broad estoppel provision prevents inter partes review petitioners from raising arguments in federal court that could have been raised during their IPRs. 35 U.S.C. § 315(e). Specifically, § 315(e)(2) of title 35 states:

The petitioner in an inter partes review of a claim in a patent under this chapter that results in a final written decision ... may not assert ... in a civil action ... that the claim is invalid on any ground that the petitioner raised or reasonably could have raised during that inter partes review.

In August 2015, IBM filed four IPR petitions with the PTAB. (D.I. 275 Exs. 17-20.)

While those petitions were instituted on all grounds (*id.* Exs. 25-28), the PTAB eventually issued a final decision finding that IBM failed to prove that any of the challenged claims were unpatentable. (*Id.* Exs. 29, 30.)

Now, IBM seeks to invalidate the asserted claims based on prior art combinations of which it was aware before it filed its IPR petitions. (*See id.* Ex. 4 (invalidity contentions that identified the relevant prior art references, dated August 2014, a year before IBM filed its IPR petitions); Ex. 3 (expert report identifying the asserted prior art combinations, filed July 2015).) The PTAB has recognized that estoppel under § 315(e) is broad, and that the prior art references (or combinations) a petitioner “could have raised” includes any references that were known to the petitioner or that could reasonably have been discovered by “a skilled searcher conducting a diligent search.” *Apotex v.*

Wyeth, IPR2015-00873 at *6 (quoting 157 Cong. Rec. S1375 (daily ed. Mar. 8, 2011) (statement of Sen. Grassley)).

On its face, this presents a strong case for estoppel. Because IBM reasonably could have raised its prior art combinations during the IPR proceedings, it should not be able to raise them here.¹⁴

In opposing estoppel, IBM argues that it could not have presented its prior art combinations because of the procedural posture of its IPR petitions. (D.I. 305 at 36; Tr. at 66-68.) IBM's IPR petitions were closely linked to petitions filed by Microsoft. Microsoft filed four IPR petitions in December 2014. (D.I. 275 Exs. 7-10.) The petitions were instituted in July 2015. One month later, IBM filed its petitions, asserting the same grounds that had been asserted by Microsoft and requesting joinder with Microsoft's IPR. (*Id.* Exs. 17-24.) Shortly thereafter, IBM's petitions were instituted, and IBM's request for joinder was granted. (*Id.* Exs. 25-28.)

IBM argues that, "[a]s a matter of practice, where a petitioner moves to join an instituted third-party trial, the [PTAB] will only grant joinder on grounds identical to those already raised." (D.I. 305 at 36.) In IBM's view, the fact that it sought joinder with Microsoft's IPR proceedings means that it would have been unreasonable for it to have raised any invalidity arguments that were not presented in Microsoft's IPR. (*Id.* ("IBM could only reasonably have raised those grounds already present in the Microsoft

¹⁴ The specific list of estopped arguments, as identified by Parallel Networks, includes each of the combinations disclosed in ¶¶ 1299-1301 of Dr. Greenspun's expert report. (See D.I. 275 Ex. 3.)

proceedings because it was moving to join the instituted Microsoft proceedings.”.) Not so.

Despite IBM’s claims to the contrary, there is no “mirror image” rule for joinder. To the contrary, the cases IBM cites for support explicitly contemplate that requests for joinder can involve petitions that assert different grounds of invalidity. *T-Mobile USA, Inc. v. Mobile Telecomms. Techs., LLC*, IPR2015-00018 Paper 13 at 3-4, 6-7 (PTAB Apr. 8, 2015) (explaining that a party seeking joinder should “identify any new grounds of unpatentability asserted in the petition”); *Sony Corp. v. Memory Integrity, LLC*, IPR2015-01376 Paper 12 at 19 (PTAB Sept. 29, 2015) (recognizing that joinder is a matter of discretion and basing its joinder decision on the procedural posture of the case and potential for delay); *see also Ariosa Diag. v. Isis Innovation Ltd.*, IPR2012-00022 Paper 104 at 4-5 (PTAB Oct. 31, 2013) (granting a request for joinder despite the fact that the new petition asserted new invalidity arguments). IBM’s argument that it could not have raised its prior art combinations is not well-founded.

Allowing IBM to raise arguments here that it elected not to raise during the IPR would give it a second bite at the apple and allow it to reap the benefits of the IPR without the downside of meaningful estoppel. To prevent that unfair result, I conclude that IBM is estopped from asserting prior art references and combinations that it reasonably could have raised before the PTAB.

2. Obviousness

Having concluded that IBM is estopped from raising prior art references that it could have raised during its IPR, I must consider which prior art references and

combinations remain. Based on the record, it appears that no prior art references or combinations remain, so I will grant Parallel Networks' motion for summary judgment eliminating the obviousness defense.

Each of IBM's prior art references or combinations fall into one of two categories: references that are estopped, and references that, while not estopped, do not qualify as prior art. I have already discussed estoppel, which disposes of the first category. Each of the remaining prior art references and combinations upon which IBM relies involves IBM's website technology – that is, IBM's 1996 Masters Server and IBM's 1996 Olympics Server. Those servers, however, cannot qualify as prior art. As earlier noted, the 1996 Masters Server operations were hidden from the public, and thus the technology cannot be relied on as a prior art reference. *See Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 (Fed. Cir. 1987) (holding that §§ 103 and 102(a) use the same definition of prior art). The analysis with respect to the Olympics Server is even more straightforward. The Olympics Server was not online and publically accessible until July 1996, several months after the priority date of the '554 patent. (D.I. 305 at 3.)

Because IBM does not identify any other non-estopped prior art references, Parallel Networks' motion for summary judgment with respect to obviousness will be granted.

D. Daubert Motions

IBM filed two *Daubert* motions. The first motion seeks to exclude the expert testimony of Dr. Bruce Isaacson (D.I. 286), who conducted a survey that purportedly supports Parallel Networks' theories of indirect infringement. The second motion seeks

to exclude the expert testimony of John R. Bone (D.I. 291), who sought to estimate the damages associated with Parallel Networks' indirect infringement theories. Because I have granted IBM's motion for summary judgment with respect to indirect infringement, those motions are denied as moot.

V. Conclusion

For the reasons stated, I will grant-in-part and deny-in-part Parallel Networks' motion for summary judgment regarding IBM's invalidity defenses, will grant-in-part and deny-in-part IBM's motion for summary judgment of non-infringement, and will deny IBM's *Daubert* motions.